IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method of manufacturing a semiconductor device, comprising the steps of:

forming a crystalline semiconductor film containing a metal element over a transparent substrate;

irradiating a first laser beam to the crystalline semiconductor film in a direction from the crystalline semiconductor film to the substrate after forming the crystalline semiconductor film; and

irradiating a second laser beam to the crystalline semiconductor film through the substrate in a direction from the substrate to the crystalline semiconductor film after irradiating the first laser beam.

2. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

3. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

4. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

5. (Original) A method of manufacturing a semiconductor device according to claim 4, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

6. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

7. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

8. (Original) A method of manufacturing a semiconductor device according to claim 7, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

9. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

10. (Withdrawn - Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming an amorphous semiconductor film over a transparent substrate;

adding a metal element to the amorphous semiconductor film followed by heating thereby forming a crystalline semiconductor film after forming the amorphous semiconductor film;

~~forming a crystalline semiconductor film with a metal element over a transparent substrate~~;

irradiating a first laser beam to the crystalline semiconductor film in a direction from the crystalline semiconductor film to the substrate, thereby melting and crystallizing the crystalline semiconductor film after adding the metal element; and

irradiating second laser beam to the crystalline semiconductor film through the substrate in a direction from the substrate to the crystalline semiconductor film, thereby melting and crystallizing the crystalline semiconductor film after irradiating the first laser beam.

11. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

12. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

13. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

14. (Withdrawn) A method of manufacturing a semiconductor device according to claim 13, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

15. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the first laser beam is emitted from a laser selected from the group

consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

16. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

17. (Withdrawn) A method of manufacturing a semiconductor device according to claim 16, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

18. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

19. (Withdrawn) A method of manufacturing a semiconductor device, comprising the steps of:

forming an amorphous semiconductor film over a transparent substrate;

adding a metal element to the amorphous semiconductor film followed by heating thereby forming a crystalline semiconductor film after forming the amorphous semiconductor film;

irradiating a first laser beam to the crystalline semiconductor film in a direction from the crystalline semiconductor film to the substrate, thereby melting and crystallizing the crystalline semiconductor film after adding the metal element; and

irradiating a second laser beam to the crystalline semiconductor film through the substrate in a direction from the substrate to the crystalline semiconductor film, thereby reducing defects in the crystalline semiconductor film after irradiating the first laser beam.

20. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

21. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

22. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

23. (Withdrawn) A method of manufacturing a semiconductor device according to claim 22, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

24. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

25. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

26. (Withdrawn) A method of manufacturing a semiconductor device according to claim 25, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

27. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

28. (Withdrawn) A method of manufacturing a semiconductor device, comprising the steps of:

forming an amorphous semiconductor film over a transparent substrate;

adding a metal element to the amorphous semiconductor film followed by heating thereby forming a crystalline semiconductor film after forming the amorphous semiconductor film;

irradiating a first laser beam to the crystalline semiconductor film in a direction from the crystalline semiconductor film to the substrate after adding the metal element; and

irradiating a second laser beam to the crystalline semiconductor film through the substrate in a direction from the substrate to the crystalline semiconductor firm after irradiating the first laser beam.

29. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

30. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

31. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

32. (Withdrawn) A method of manufacturing a semiconductor device according to claim 31, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

33. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

34. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

35. (Withdrawn) A method of manufacturing a semiconductor device according to claim 34, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

36. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

37. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a crystalline semiconductor film containing a metal element over a transparent substrate;

~~forming a crystalline semiconductor film with a metal element over a transparent substrate;~~

irradiating a first laser beam to the crystalline semiconductor film in a direction from the crystalline semiconductor film to the substrate after forming the crystalline semiconductor film, thereby melting and crystallizing the crystalline semiconductor film ~~after forming the crystalline semiconductor film~~; and

irradiating a second laser beam to the crystalline semiconductor film through the substrate in a direction from the substrate to the crystalline semiconductor film after irradiating the first laser beam, thereby melting and crystallizing the crystalline semiconductor film ~~after irradiating the first laser beam~~.

38. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

39. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

40. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

41. (Previously Presented) A method of manufacturing a semiconductor device according to claim 40, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

42. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

43. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

44. (Previously Presented) A method of manufacturing a semiconductor device according to claim 43, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

45. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

46. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a crystalline semiconductor film containing a metal element over a transparent substrate;

irradiating a first laser beam to the crystalline semiconductor film in a direction from the crystalline semiconductor film to the substrate after forming the crystalline semiconductor film, thereby melting and crystallizing the crystalline semiconductor film ~~after forming the crystalline semiconductor film~~; and

irradiating a second laser beam to the crystalline semiconductor film through the substrate in a direction from the substrate to the crystalline semiconductor film after irradiating the first laser beam~~, thereby reducing~~ to reduce defects in the crystalline semiconductor film ~~after irradiating the first laser beam~~.

47. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

48. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

49. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

50. (Previously Presented) A method of manufacturing a semiconductor device according to claim 49, wherein the excimer laser is selected from the group consisting of a

XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

51. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

52. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

53. (Previously Presented) A method of manufacturing a semiconductor device according to claim 52, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

54. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

55. (Previously Presented) A method of manufacturing a semiconductor device according to claim 1, wherein the step of forming the crystalline semiconductor film containing the metal element over the transparent substrate comprises:

forming an amorphous semiconductor film over the transparent substrate;

adding the metal element to the amorphous semiconductor film; and

heating the amorphous semiconductor film to form the crystalline semiconductor film after adding the metal element.

56. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the step of forming the crystalline semiconductor film containing the metal element over the transparent substrate comprises:

forming an amorphous semiconductor film over the transparent substrate;

adding the metal element to the amorphous semiconductor film; and

heating the amorphous semiconductor film to form the crystalline semiconductor film after adding the metal element.

57. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the step of forming the crystalline semiconductor film containing the metal element over the transparent substrate comprises:

forming an amorphous semiconductor film over the transparent substrate;

adding the metal element to the amorphous semiconductor film; and

heating the amorphous semiconductor film to form the crystalline semiconductor film after adding the metal element.

58. (New) A method of manufacturing a semiconductor device according to claim 1 further comprising a step of:

gettering the metal element after irradiating the second laser beam.

59. (New) A method of manufacturing a semiconductor device according to claim 37 further comprising a step of:

gettering the metal element after irradiating the second laser beam.

60. (New) A method of manufacturing a semiconductor device according to claim 46 further comprising a step of:

gettering the metal element after irradiating the second laser beam.